In his long career Jim Gill had many achievements in the fields of university teaching and geological research, as well as in the discovery and development of mineral resources. His death on January 26, 1980, after a protracted illness, will be mourned by the many members of the geological and mining professions in Canada and the United States, whose institutions he served so diligently and well as part of a busy active lifetime, as well as by his many friends and former students.

James Edward Gill was born in Nelson, British Columbia, on January 16th, 1901. After lower schooling in Vancouver, he took the first three years (1917–1920) of his further education at the University of British Columbia, but completed his final year at McGill University upon the urging of a summer employer, Dr. J. Austin Bancroft, then Chairman of the Geology Department of McGill. He received a Bachelor of Applied Science (Mining Engineering) in 1921. After a year's practice as a mining engineer at the Granby Consolidated Mining, Smelting, and Power Co., Ltd., he continued his studies at Princeton University, graduating as Doctor of Philosophy in 1925. At Princeton he held the Charlotte Elizabeth Proctor Fellowship for 1924–1925.

Gill took up university teaching in the fall of 1925 at the University of Rochester, New York, first as instructor and then as assistant professor. In 1929 he moved to McGill University in Montreal, where he was to remain for the rest of his academic life. He was promoted to Associate Professor in 1939, was appointed Professor in 1949, and Sir William Dawson Professor in 1957, one of the oldest chairs in the university. He served as chairman of the Department of Geological Sciences for the period 1959–1966. Upon retirement in 1971 the university honored him with the designation of Professor Emeritus, a title conferred but rarely on retirees by McGill. He was further honored in his department by the naming of a special conference-seminar room in the Frank Dawson Adams Building in perpetuum “The Gill Room”.

Gill's teaching specialties were structural geology and economic geology, but he also taught geomorphology for many years prior to the post-World War II expansion of the Department of Geological Sciences. His greatest teaching interest lay in mining geology and mineral exploration, however. He was a co-innovator, with Professors J. E. Riddell and J. S. Stevenson, of McGill's Mineral Exploration curriculum leading to a M.Sc. Applied degree. This two-year course of study has, since its inception in the mid-fifties, attracted students not only from Canada, but from all parts of the world. Gill was also instrumental in the development of one of the first major applied geochemistry laboratories in the North American university. These developments, which continued and reinforced the tradition of practical geology at McGill established under J. W. Dawson and Frank Dawson Adams in the latter half of the nineteenth century, were very close to Gill's heart and spirit.
As a teacher Gill was systematic and thorough in his treatment of his chosen subjects of structural geology and mineral deposits. He was of rather fierce mien outwardly, and could inspire considerable awe amongst his students, but inwardly he was always deeply concerned about their well-being and development, and frequently went to great pains to ensure at least some modicum of success upon the part of an otherwise-failing student.

Considering his mining engineering background, it is not surprising that Gill's principal field of interest was in ore deposits, and throughout his life he spent his summers exploring for or developing mining properties, principally in Canada those containing gold and iron ores, but also in the United States and the Caribbean for other substances such as silica for glass making. This practical field experience greatly augmented the impact of his courses in economic and mining geology, and won him great respect from his students, many of whom went on to successful careers in the mining industry.

In 1929, in partnership with another McGill graduate geologist, Dr. W. F. James, Gill led an airsupported expedition in search of iron deposits into the centre of the Ungava Peninsula of Quebec and Labrador. They discovered the first high-grade hematite iron ore, which subsequently led to the development of the great Iron Ore Company deposits exploited from the end of World War II until the present.

In the thirties, Gill was instrumental in the discovery of several gold deposits in Northwestern Quebec including the large and important Malartic Gold Fields Mine. In 1940 he directed the opening and development of the Sterrett Mine, the only high-grade chromite mine in production in Canada during World War II. At the end of the war he prepared reports on the mineral resources of the Northwest Territories and the Red Lake District, Northwestern Ontario, for the Federal Department of Reconstruction.

Gill's major research contribution lay in the field of Precambrian geology, for he had spent some part of practically every field season during his professional life working on the Canadian Shield. His greatest contribution, in 1948, was the structural division of the Shield into major provinces based upon tectonic style and relationships. Later in his academic career he became interested in the deformation of sulphides and carried out a number of useful studies with his students.

Over a period of some thirty years he struggled to introduce some sense into the confusing nomenclature of faults and faulting, and wrote a number of papers on the subject.

Gill was a Fellow of the Geological Society of Canada, of the Geological Association of Canada, and of the Royal Society of Canada, and a life member of the Canadian Institute of Mining and Metallurgy. He was also a member of the American Association for the Advancement of Science, the Society of Economic Geologists, the Order of Professional Engineers of Quebec, the Mineralogical Association of Canada, and the Sigma Xi Scientific Research Society. Gill served as member of Council of the Geological Society of America (1953–1956), on the Publications and Penrose Medal Committees (1954–1956 and 1959–1961) and as Associate Editor (1963–1967).

Dr. Gill also served the Royal Society of Canada as President of Section IV - Geological Sciences (1960–1961) and President of Section II - Science (1963–1964). His greatest allegiance was, however, to the Canadian Institute of Mining and Metallurgy, on whose many committees he served with diligence and effectiveness from 1942 to 1968.

At the end of his long years of service to the profession, Jim Gill took on the task of Editor of Publications for the 24th International Geological Congress held in Montreal in 1972. In characteristic fashion Gill saw to it that Congress publications were available to participants on the opening day of the Congress without fuss or fanfare.

His many honors include the Willet G. Miller Medal of the Royal Society of Canada, the Barlow Memorial Medal and the Distinguished Service Medal of the Canadian Institute of Mining and Metallurgy, and the Logan Medal of the Geological Association of Canada.
In 1925 Jim Gill married Florence Drysdale of Montreal. Flo shared his interest in education and the earth sciences, and was herself very active for many years in the Woman's Auxiliary of the Canadian Institute of Mining and Metallurgy and the Women's Associates of McGill University. She also accompanied Jim on many of his shorter field trips, and to geological and mining conventions. Flo and Jim were generous and convivial hosts and his many students as well as visiting geologists will long remember and appreciate visits to their home.

In addition to his wife, Jim is survived by his son, Robert, of Toronto; his daughter, Clare (Mrs. R.B.T. Evans), of Westmount, Quebec; six grandchildren; and one great grandchild.

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